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On a New Genus of the Crustacea, and the Species on which it is established. By Thomas Say. Read July, 8, 1817.

ORDER MACROURI.

Genus CERAPUS*,

Essential Character.—Thumb of the second pair of feet biarticulate; Interior antennæ four jointed, exterior ones five jointed.

Artificial Character.—Antennæ subequal, interior ones 4-jointed, exterior one 5-jointed. Two anterior pairs of feet monodactyle, the second pair with a two jointed thumb.

Natural Character.—Body semicylindrical, somewhat linear, decreasing towards the tail, ten-jointed. Head distinct from the first joint and larger, quadrate, a little elongated into an angle near the base of the interior antennæ, each side, for the reception of the eyes, which are hardly prominent. Antennæ nearly equal, very large, interior ones with the first joint thicker, second and third

* From κερας, a horn, and πους, a foot, in allusion to the animal employing its antennæ as feet.

nearly equal; exterior antennæ five-jointed, the first joint placed in a deep sinus beneath the eye, short, not projecting beyond the margin of the head above, second joint hardly longer than the first, third and fourth equal to the second and third of the interior antennæ. Anterior pair of feet moderate, with a small ovate hand and moveable nail, not closing on the hand, attached to the first segment of the body; second pair with the basal joint attached to the edge of the body (as in *Cymothoa*, &c.) second joint broad, compressed with an insisure near the base before, third small, medioliform, carpus cylindrical, narrower than the preceding joint; hand very large, compressed, subtriangular, attached to the carpus by the inferior edge of the acute angle, which is a little curved, tip emarginate and armed with a strong, acute spine on the anterior angle, thumb two-jointed, first joint incurved, linear, second acute, closing on the spine of the hand. Third and fourth pairs of feet equal, similar to each other, first joint dilated, equal to that of the preceding feet, remaining joints small, nearly equal to each other, submoniliform; two posterior pairs of feet reflected above the back; tail incurved, furnished each side near the tip with a pedunculated bifid process, and a minute, conic, acute, papilla.

1. *C. tubularis*. Head with a mucronate carina before; eyes oval, black. Hand and first joint of the thumb of the second pair of feet with one or two obtuse teeth within. Body above blackish, with irregular paler spots; antennæ and feet white, joints tipped with blackish; two hind pairs of feet and tail white.

Inhabits a tube. Length about one quarter of an inch.

This curious animal, for which I have constructed a

new genus, was found amongst fuci on the sea beach at Egg-Harbour in considerable numbers. In its mode of life it bears some resemblance to the *Pagurii*, inhabiting a cylindrical tube; but the circumstance of its inhabiting a foreign body is the only point of similarity between them. To the genus *Caprella* it approximates by the form and disposition of the head with the antennæ; but differs from it in essential particulars, as in the form of the tail, number of joints of the body, and position and form of the feet. With the genera *Talitrus*, *Gammarus*, &c. it is related chiefly by the incurved tail and reflected hind feet, but the caudal appendices, as well as many other important parts, are totally dissimilar, these appendices are not rigid and spinose as in *Gammarus*, but flexible and lateral as in *Cymothoa*. Its proper situation in the system of Latreille will be with the family *Gammarinæ* and intermediate between the genera *Gammarus* and *Caprella*. But in the excellent modifications of Dr. Leach it will be placed in his family *Podoceridæ*, next to his recently discovered genus *Jassa*, to which indeed it might be referred, as far as I am able to judge from the brief description that has been given of that genus, but for the two-jointed thumb, and other minor characters.

This little animal is very active, running with great facility amongst the branches of fucus, sertularia, &c. although encumbered by its tube, and what is extraordinary, making use of its four antennæ only as feet; the proper feet are all included within the tube, with the exception of the two anterior pairs, which are only used to seize its prey and convey it to the mouth. Feeds principally upon the animals of *Sertularia*?

The tube is always proportioned to the size of the

inhabitant, and appears to invest it closely, nevertheless when an impediment is presented, in consequence of which the animal is prevented from proceeding onwards, he turns his body immediately, and apparently without any difficulty within the tube, protrudes his head from the opposite extremity, and thus makes use of either end indifferently as the anterior part.

When swimming about one half of the body is projected from the tube, and is suddenly and repeatedly inflected, so as to proceed forwards by jerks. It very much resembles, at first view, the larvæ of insects of the family of Phryganides, for which it must have been hitherto mistaken.

Not having the tube before me, I can only say from recollection, that it is cylindric, membranaceous, diaphanous, open at each end, and of a colour somewhat reddish; but of its origin I know nothing, a little observation on the spot might however determine this. To suppose it fabricated by the animal, would be supposing an absolute anomaly in the history of the whole race of crabs, and there is no organ belonging to the Cerapus which could be adapted to a function so remarkable. I think it probable the tube will be ascertained, by further and more particular examination, to have been constructed by one of the annelides; indeed it perfectly resembles in every respect a section of the tube of that species of Tubularia which we so commonly find in the cavities of the large Alcyonium of our coast.

A plate of this animal, with the necessary details, will be given in the succeeding number.